



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/554,184	10/21/2005	Morihiko Sato	450100-05044	7823

7590 12/09/2008
William S Frommer
Frommer Lawrence & Haug
745 Fifth Avenue
New York, NY 10151

EXAMINER

BATTAGLIA, MICHAEL V

ART UNIT	PAPER NUMBER
----------	--------------

2627

MAIL DATE	DELIVERY MODE
-----------	---------------

12/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/554,184	Applicant(s) SATO, MORIHIKO	
	Examiner MICHAEL V. BATTAGLIA	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Drawings

1. As a result of the July 2, 2008 amendments to the specification, the drawings received on October 21, 2005 are now acceptable.

Claim Objections

2. Claims 1 and 6 are objected to because of the following informality. On line 9 of claims 1 and 6, replacing “transfer rate” with --a transfer rate-- or --the transfer rate-- is suggested. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Because it is unclear to which of the claimed “first reproduction signal” and “second reproduction signal” of the lines 1-2 of claims 1 and 6 “the reproduction signal” of line 9 of claims 1 and 5 refers, the scope of protection sought is unclear. For example, is the claim limited to “sync adjustment information . . . based [the] transfer rate of” the first reproduction signal, the second reproduction signal, either one of the first and second reproduction signal, or both of the first and second reproduction signal?

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

Art Unit: 2627

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murai et al (hereinafter Murai) (US 4,873,679) in view of Furumiya et al (hereinafter Furumiya) (US 5,488,593).

In regard to claim 1, Murai discloses a reproducing apparatus (Figs. 5 and 7) in which a first reproduction signal and a second reproduction signal are simultaneously obtained by a plurality of reading means (Figs. 5 and 7, elements 39 and 40) from a disc-shaped recording medium (Figs. 5 and 7, element 38) on which data of a high-transfer rate and data of a low-transfer rate have been recorded (Col. 9, lines 6-51), comprising: signal layout converting means (Fig. 7, elements 56, 57 and 61) for time division multiplexing said first reproduction signal and said second reproduction signal and arranging them (Col. 9, lines 62-64); sync adjustment information forming means (Fig. 7, elements 50, 51 and 60) for forming sync adjustment information ("address information" of Col. 9, line 40 and information which "sets up in advance the synthesized oscillators . . . so that they oscillate comparing source oscillation frequencies corresponding to the target track addresses" (Col. 9, lines 51-55)) which is optimum to each reproduction signal from said first reproduction signal and said second reproduction signal (Col. 9, lines 51-62), based upon transfer rate of the reproduction signal (Col. 9, lines 51-55 and note that the sync adjustment information of Murai is based on the transfer rate of a reproduction signal because the transfer rate depends the number of sectors on a target track (Col. 9, lines 6-35) and the "source oscillation frequencies correspond[] to the target track addresses" (Col. 9, lines 51-59)); and a PLL (Fig. 7, elements 52 and 53) for generating a clock ("reproduction clock" of Col. 9, lines 58-59) signal according to said sync adjustment information (Col. 9, lines

Art Unit: 2627

51-62). Murai does not disclose a waveform equalizing means for executing a waveform equalizing process to an output of said signal layout converting means; and a switching means for switching characteristics of said waveform equalizing means in accordance with said sync adjustment information.

Furumiya teaches that a reproducing apparatus (Fig. 1) in which a first reproduction signal and a second reproduction signal are simultaneously obtained by a plurality of reading means (Fig. 1, elements 1 and 2) from a disc-shaped recording medium (Figs. 1 and 2, element 3) on which data of a high-transfer rate and data of a low-transfer rate have been recorded (Col. 4, line 55-Col. 5, line 3), comprising: sync adjustment information forming means (Fig. 7, element 7) for forming sync adjustment information ("address signals" of Col. 3, line 35); waveform equalizing means (Fig. 1, elements C1, C2 and 20) for executing a waveform equalizing process (Col. 3, line 54-Col. 4, lines 32); and a switching means (Fig. 1, element 9) for switching characteristics of said waveform equalizing means in accordance with said sync adjustment information (Col. 3, lines 37-48). Furimaya teaches that, by doing so, the reproduction signals are equalized with an equalizer having characteristics suited for the rate at which the information was transferred (Col. 3, lines 54-64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the apparatus of Murai to include a waveform equalizing means for executing a waveform equalizing process to an output of the signal layout converting means of Murai and a switching means for switching characteristics of said waveform equalizing means in accordance with said sync adjustment information of Murai as suggested by Furumiya, the motivation being for the output of the signal layout converting means of Murai to be equalized with an equalizer

Art Unit: 2627

having characteristics suited for the rate at which the information was transferred. It is noted that applying the waveform equalizing means and switching means of Furumiya to the output of the signal layout converting means of Murai would be well within the skill of one of ordinary skill in the art at the time of the invention (see switching means (Fig. 2, elements 25 and 28) and waveform equalizing means (Fig. 2, elements 26 and 27) of Sato et al (US 6,134,196)).

In regard to claim 2, Murai discloses that the signals are reproduced so that the sum of the transfer rate of said first reproduction signal and the transfer rate of said second reproduction signal is set to be almost constant (Col. 9, lines 9-35 and 64-67).

In regard to claim 5, Murai discloses that said disc-shaped recording medium has a duplex recording structure and said reading means are provided for both sides of the disc (Figs. 5 and 7).

In regard to claim 6, Murai in view of Furumiya discloses a reproducing method corresponding to the means of the reproducing apparatus of claim 1 (see rejection of claim 1 above).

Allowable Subject Matter

5. Claims 3 and 4 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, 2nd paragraph, and the objection set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. None of the references of record alone or in combination suggest or fairly teach a reproducing apparatus including all the limitations of claim 1 and wherein said PLL comprises a voltage controlled oscillator, a phase comparator for phase-comparing an output of said voltage controlled oscillator or its frequency-divided output with an edge detection pulse of the reproduction signal, and a charge pump filter

Art Unit: 2627

to which an output of said phase comparator is supplied and which forms a control voltage for said voltage controlled oscillator, **and an output frequency of said voltage controlled oscillator and a pulse width of said edge detection pulse are controlled on the basis of switching information of heads and linear velocity information as said sync adjustment information.**

Response to Arguments

6. Applicant's arguments filed July 2, 2008 have been fully considered but they are not persuasive. Applicant argues that Murai does not disclose the claimed clock signal generated in accordance with the sync adjustment information which is based upon the transfer rate of the reproduction signal because Murai "merely discloses that the PLL circuits [of Murai] oscillate based upon the target track address and not based upon the transfer rate" (Applicant's Response filed July 7, 2008 at 10). In other words, Applicant argues that the sync adjustment information of Murai is based "upon the target track address and not based upon the transfer rate" (see *Id.* and note that the PLL circuits of Murai generate the clock signal of Murai (Col. 9, lines 58-59)).

However, the sync adjustment information of Murai ("address information" of Col. 9, line 40 and information which "sets up in advance the synthesized oscillators . . . so that they oscillate comparing source oscillation frequencies corresponding to the target track addresses" (Col. 9, lines 51-55)) is based on the transfer rate of a reproduction signal because the transfer rate depends the number of sectors on a target track (Col. 9, lines 6-35) and the "source oscillation frequencies correspond[] to the target track addresses" (Col. 9, lines 51-59). Accordingly, the rejection of claims 1, 2, 5 and 6 over Murai in view of Furumiya are maintained.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL V. BATTAGLIA whose telephone number is (571)272-7568. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael V. Battaglia/
Primary Examiner, Art Unit 2627